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Atty. Dkt. No. 040849-0188

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dinko E. GONZALEZ TROTTER et al.

Title: SCATTER CORRECTION
METHOD FOR NON-STATIONARY X-RAY
ACQUISITIONS

Appl. No.: 10/063,806

Filing Date: 05/15/2002

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Commissioner for Patents
Box PATENT APPLICATION
Washington, D.C. 20231

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date 5/27/02

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: <u>May 24, 2002</u> (use as many sheets as necessary)		Application Number <u>10/063,806</u> Filing Date <u>05/15/02</u> First Named Inventor <u>Dinko E. GONZALEZ TROTTER et al.</u> Group Art Unit <u>Unassigned</u> Examiner Name <u>Unassigned</u> Attorney Docket Number <u>040849/0188</u>	
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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

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Group Art Unit	Unassigned
Examiner Name	Unassigned

Attorney Docket Number 040849/0188

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A30	A. THOMAS STAVROS et al.: "Solid Breast Nodules: Use of Sonography to Distinguish between Benign and Malignant Lesions," Radiology, July 1995, pages 123-134, Volume 196, Number 1, Englewood, CO	
	A31	THOMAS M. KOLB et al.: "Occult Cancer in Women with Dense Breasts: Detection with Screening US-Diagnostic Yield and Tumor Characteristics," Radiology, April 1998, pages 191-199, Volume 207, Number 1	
	A32	DANIEL B. KOPANS et al.: "Development and Clinical Evaluation of Tomosynthesis for Digital Mammography; Technical and Cost Proposal," Clinical Translational Research Award, Department of Defense Breast Cancer Research Program, November 19, 1997, pages 1-54	
	A33	NICO KARSSEMEIJER: "Computer-Aided Detection and Interpretation in Mammography," pages 243-252	
	A34	NICO KARSSEMEIJER et al.: "Detection of Stellate Distortions in Mammograms," IEEE Transactions on Medical Imaging, October 1996, pages 611-619, Vol. 15, No. 5, IEEE	
	A35	IOANNA CHRISTOYIANNI et al.: "Fast Detection of Masses in Computer-Aided Mammography," IEEE Signal Processing Magazine, January 2000, pages 54-64	
	A36	CELIA BYRNE et al.: "Mammographic Features and Breast Cancer Risk: Effects with Time, Age, and Menopause Status," Journal of the National Cancer Institute, November 1, 1995, pages 1622-1629, Vol. 87, No. 21	
	A37	MILAN SONKA et al.: "Computer-Aided Diagnosis in Mammography," Handbook of Medical Imaging - Volume 2. Medical Image Processing and Analysis, pages 915-958, Spie Press, Bellingham, Washington	
	A38	MATTHEW A. KUPINSKI et al.: "Feature Selection and Classifiers for the Computerized Detection of Mass Lesions in Digital Mammography," IEEE Int. Conf. On Neural Nets, 1997, pages 2460-2463, IEEE	
	A39	SHUK-MEI LAI et al.: "On Techniques for Detecting Circumscribed Masses in Mammograms," IEEE Transactions on Medical Imaging, December 1989, pages 377-386, Vol. 8, No. 4, IEEE	
	A40	MARIOS A. GAVRIELIDES et al.: "Segmentation of Suspicious Clustered Microcalcifications in Mammograms," Med. Phys., January 2000, pages 13-22, Vol. 27, No. 1, Am. Assoc. Phys. Med.	

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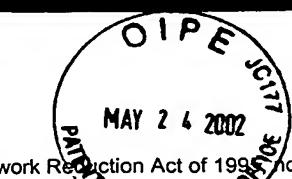
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Sheet

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	A41	WEI ZHANG et al.: "Optimally Weighted Wavelet Transform Based on Supervised Training for Detection of Microcalcifications in Digital Mammograms," Med. Phys. June 1998, pages 949-956, Vol. 25, No. 6, Am. Assoc. Phys. Med.	
	A42	BERKMAN SAHINER et al.: "Computerized Characterization of Masses on Mammograms: The Rubber Band Straightening Transform and Texture Analysis," Med. Phys. April 1998, pages 516-526, Vol. 25, No. 4, Am. Assoc. Phys. Med.	
	A43	ZHIMIN HUO et al.: "Computerized Analysis of Mammographic Parenchymal Patterns for Breast Cancer Risk Assessment: Feature Selection," Med. Phys., January 2000, pages 4-12, Vol. 27, No. 1, Am. Assoc. Phys. Med.	
	A44	DATONG WEI et al.: "Classification of Mass and Normal Breast Tissue on Digital Mammograms: Multiresolution Texture Analysis," Med. Phys. September 1995, pages 1501-1513, Vol. 22, No. 9, Am. Assoc. Phys. Med.	
	A45	JOHN J. HEINE et al.: "Multiresolution Statistical Analysis of High-Resolution Digital Mammograms," IEEE Transactions on Medical Imaging, October 1997, pages 503-515, Vol. 16, No. 5, IEEE	
	A46	WOUTER J. H. VELDKAMP et al.: "Normalization of Local Contrast in Mammograms," IEEE Transaction on Medical Imaging, July 2000, pages 731-738, Vol. 19, No. 7, IEEE	
	A47	WEI QIAN et al.: "Tree Structured Wavelet Transform Segmentation of Microcalcifications in Digital Mammography," Med. Phys., August 1995, pages 1247-1254, Vol. 22, No. 8, Am. Assoc. Phys. Med.	
	A48	HIGHNAM et al.: "Mammographic Image Analysis," 1999, pages 39-53, 191-223, 288, Kluwer Academic Publishers	
	A49	DUDA et al.: "Pattern Classification," 2001, pages 161-199	
	A50	LAURA M. YARUSSO et al.: "Application of Computer-Aided Diagnosis to Full-Field Digital Mammography," IWDM 2000, 5th International Workshop on Digital Mammography, pages 421-426, 2001, Medical Physics Publishing, Madison, Wisconsin	
	A51	LIHUA LI et al.: "Hybrid Classification Method for False-Positive Reduction in CAD for Mass Detection," IWDM 2000, 5th International Workshop on Digital Mammography, pages 272-279, 2001, Medical Physics Publishing, Madison, Wisconsin	
	A52	ROBERT P. VELTHUIZEN: "Computer Description of Mammographic Masses," IWDM 2000, 5th International Workshop on Digital Mammography, pages 395-401, 2001, Medical Physics Publishing, Madison, Wisconsin	
	A53	ARMANDO BAZZANI et al.: "Automatic Detection of Clustered Microcalcifications Using a Combined Method and an SVM Classifier," IWDM 2000, 5th International Workshop on Digital Mammography, pages 161-167, 2001, Medical Physics Publishing, Madison, Wisconsin	
	A54	YOSHIHIRO HAGIHARA et al.: "Accurate Detection of Microcalcifications on Mammograms by Improvement of Morphological Processing," IWDM 2000, 5th International Workshop on Digital Mammography, pages 193-197, 2001, Medical Physics Publishing, Madison, Wisconsin	

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	A55	M. LANYI: "Diagnosis and Differential Diagnosis of Microcalcifications," Ductal Carcinomas of Varying Histologic Types, pages 44, 60, 61, 86, 95, 98-101, 110, 118-120, and 192, 1987, Springer-Verlag	
	A56	DANIEL B. KOPANS: "The Positive Predictive Value of Mammography," AJR, March 1992, pages 521-526, Vol. 158, American Roentgen Ray Society	

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